

U.S.S.N. 10/340,185

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Listing of Claims

1. (currently amended) An insert ring assembly for a process chamber, comprising:

an insert ring having a ring body defining a central ring opening and an annular step having an upper step surface provided on said ring body and spaced-apart from said central ring opening; and

a shadow ring encircling and supporting said insert ring, an outer portion of said shadow ring and extending beyond vertically higher than said upper step surface of said insert ring.

2. (previously presented) The insert ring assembly of claim 1 wherein said ring body comprises silicon.

3. (previously presented) The insert ring assembly of claim 1 wherein said ring body has a ring body thickness of about 3.5 mm.

4. (previously presented) The insert ring assembly of claim 3 wherein said ring body comprises silicon.

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5. (previously presented) The insert ring assembly of claim 1 wherein said step has a step thickness of about 1.5 mm.

6. (previously presented) The insert ring assembly of claim 1 wherein said process chamber comprises etching process chamber.

7. (previously presented) The insert ring of claim 5 wherein said ring body has a ring body thickness of about 3.5 mm.

8. (previously presented) The insert ring of claim 7 wherein said ring body comprises silicon.

9. (currently amended) An insert ring assembly for a process chamber, comprising:

a wafer support for supporting a wafer;

an insert ring encircling said wafer support, said insert ring comprising a ring body defining a central ring opening and an annular step having an upper step surface provided on said ring body and spaced-apart from said central ring opening;

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a generally perpendicular flow space defined between said insert ring and said wafer support; and

a shadow ring encircling and supporting said insert ring, an outer portion of said shadow ring and extending beyond vertically higher than said upper step surface of said insert ring.

10. (original) The insert ring assembly of claim 9 wherein said ring body comprises silicon.

11. (original) The insert ring assembly of claim 9 wherein said ring body has a ring body thickness of about 3.5 mm and said step has a step thickness of about 1.5 mm.

12. (original) The insert ring of claim 9 wherein said process chamber comprises etching process chamber.

Claims 13-16 (canceled)

Claims 17-20 (canceled)

21. (new) An insert ring assembly for a process chamber, comprising:

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a wafer support for supporting a wafer;

an insert ring encircling said wafer support, said insert ring comprising a ring body defining a central ring opening and an annular step having a horizontal upper step surface and a horizontal lower step surface provided on said ring body and spaced-apart from said central ring opening;

a flow space defined between said insert ring and said wafer support;

a shadow ring encircling and supporting said insert ring, an outer portion of said shadow ring extending vertically higher than said upper step surface of said insert ring; and

wherein said annular step horizontal lower step surface is lower in a horizontal plane than an upper surface of said wafer support.

22. (new) The insert ring assembly of claim 21 wherein said annular step horizontal upper step surface is vertically higher in a horizontal plane than a wafer supported on said wafer support.

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23. (new) The insert ring assembly of claim 21 wherein said step has a step thickness of about 1.5 mm.

24. (new) The insert ring assembly of claim 21 wherein said process chamber comprises an etching process chamber.

25. (new) The insert ring assembly of claim 1 wherein said annular step upper step surface is vertically higher in a horizontal plane than a wafer supported on said wafer support.

26. (new) The insert ring assembly of claim 1 further comprising an annular step lower step surface lower in a horizontal plane than an upper surface of said wafer support.

27. (new) The insert ring assembly of claim 9 wherein said annular step upper step surface is vertically higher in a horizontal plane than a wafer supported on said wafer support.

28. (new) The insert ring assembly of claim 9 further comprising an annular step lower step surface lower in a horizontal plane than an upper surface of said wafer support.